TONOGAI, R., (see Nakamura, 727).
TONOGAI, Y., (see Kobatake, 971).
TORKELSON, J. D., (see Weagant, 655).
TOWNSEND, W. E., (see Davis, 773).
TRUCKSESS, M. W., mold growth and toxin production on corn and beans, 361; (see Mislivec, 449).
TRUSCOTT, R. B., (see Lammerding, 47); isolation of *L. monocytogenes* from ground beef, 626.
TSAI, L. S., (see Hart, 269); (see Bullerman, 457).
UMOH, V. J., enterogenic staphylococci in milk products, 534.
VANDERZANT, C., (see Acuff, 260; 945).
VELD, J. H., (see Schonwalder, 680).
VIGNOLO, G. M., (see Oliver, 481).
VILADRICH, R., (see Sanchis, 289).
VILLOTA, R., injury and recovery of *S. aureus*, 181.
VINAS, V. I., (see Sanchis, 289).
VISSER, I. J. R., (see Bijker, 208).
VIZCARRA, M. M., (see Bryan, 293, 412); (see Michanie, 314).
WAGNER, M. K., (see Marth, 715).
WALSH, P. M., (see Hoover, 29).
WANISKA, R. D., (see Acuff, 945).
WARNER, R. L., (see Pestka, 201).
WARREN, M. W., (see Moore, 565).
WEAGANT, S. D., *listeria* in frozen seafood products, 655.
WEBSTER, J. A. J., (see Leach, 949).
WEHR, H. M., (see Marshall, 154).
WEI, C. I., methods for *Plesiomonas*, 110; (see Chu, 463); *plesiomonas shigelloids* using tetrathionate broth, 925.
WEISS, K. F., (see Farber, 397).
WEISS, L. H., fluorogenic assay of *E. coli*, 766.
WEISSLOWICZ, H., (see Juven, 436).
WHITE, D. G., (see Langlois, 685).
WILLIAMS, H. L., (see Lopez, 39, 574).
WILLIAMS, K. R., (see Dutton, 887).
WILSON, C. R., (see Andrews, 409).
WONG, H. C., *Bacillus cereus* in milk products, 707.
WOOD, D. S., (see Collins-Thompson, 632).
YANG, X., (see Board, 303).
YASUNO, T., (see Ogino, 737).
YETIM, H., (see Ockerman, 121).
YOUSEF, A. E., (see Marth, 12).
YUAN, T. C., (see Richardson, 778).
ZOMER, E., (see Charm, 920).
ZOTTOLA, E. A., *L. monocytogenes* growth in cooling media, 172; *Y. enterocolitica* attached to stainless steel, 445.
ZSCHALER, R., (see Schonwalder, 680).
ZURERA-COSANO, G., mercury in spanish mushrooms, 205.

CONTENTS, VOLUME 51

Vol. 51 — January, 1988 — No. 1

Research Papers

- Effect of Potassium Sorbate and Other Treatments on the Microbial Content and Keeping Quality of a Restaurant-Type Mexican Hot Sauce **Lisa M. Flores, Lutgarda S. Palomar, Peggy A. Roh and Lloyd B. Bullerman*** 4
- Antibiotic/Antimicrobial Residues in Milk **M. S. Brady* and S. E. Katz** 8
- Behavior of *Listeria monocytogenes* During the Manufacturing and Storage of Colby Cheese **Ahmed E. Yousef and Elmer H. Marth*** 12
- Loss of Viability by *Listeria monocytogenes* in Commercial Calf Rennet Extract **Fathy E. El-Gazzar and Elmer H. Marth*** 16
- Effect of Fluorescent Light on Flavor and Riboflavin Content of Milk Held in Modified Half-Gallon Containers **J. C. Hoskin** 19
- Use of Lysostaphin and Bacitracin Susceptibility for Routine Presumptive Identification of Staphylococci of Bovine Origin **B. E. Langlois*, R. J. Harmon and K. Akers** 24
- A Bacteriocin Produced by Pediococcus Species Associated with a 5.5-Megadalton Plasmid **Dallas G. Hoover*, Patricia M. Walsh, Karen M. Kolsetis and Mary M. Daly** 29
- Evaluation of Citrinin Toxicity on the Immune Functions of Mice **R. V. Reddy, M. J. Taylor and R. P. Sharma*** 32
- Germination of Spores of *Clostridium botulinum* Type G **Koichi Takeshi*, Yoshiaki Ando and Keiji Oguma** 37
- Essential elements in Dry and Canned Kidney Beans (*Phaseolus vulgaris* L.) **Anthony Lopez* and Harriet L. Williams** 39
- Evaluation of the Swab Test on Premises, the Calf Antibiotic and Sulfa Test, and a Microbial Inhibitor Test with Standard Solutions of 22 Antibiotics **Gary O. Korsrud* and James D. Macneil** 43
- Prevalence of *Salmonella* and Thermophilic *Campylobacter* in Fresh Pork, Beef, Veal and Poultry in Canada **A. M. Lammerding*, M. M. Garcia, E. D. Mann, Y. Robinson, W. J. Dorward, R. B. Truscott and F. Tittiger** 47
- A Survey of Coliforms and *Staphylococcus aureus* in Cheese Using Impedimetric and Plate Count Methods **F. A. Khayat, J. C. Bruhn and G. H. Richardson*** 53

General Interest Papers

- Foodborne and Waterborne Disease in Canada - 1982 Annual Summary **E. C. Todd** 58
- Foods and Food Ingredients for Prevention of Diarrheal Disease in Children in Developing Countries **N. R. Reddy, S. J. Roth, W. N. Elgal and M. D. Pierson*** 66

Vol. 51 — February, 1988 — No. 2

Research Papers

- Cook/Chill Foodservice System with a Microwave Oven: Coliforms and Aerobic Counts from Turkey Rolls and Slices **Patricia A. Ollinger-Snyder and M. Eileen Matthews*** 84
- Performance of Four Selective Media for Enumerating *Staphylococcus aureus* in Corned Beef and in Cheese **K. Rayman*, N. Malik and G. Jarvis** 87
- Evaluation of Three Different Cleaners Recommended for Ultrafiltration Systems by Direct Observations of Commercial-Scale Spiral-Wound Ultrafiltration Membranes **K. E. Smith and R. L. Bradley, Jr.** 89
- Effects of Antioxidants on the Retail Appearance and Display-life of Frozen Bacon **L. E. Jeremiah** 105
- Enhanced Recovery of *Plesiomonas shigelloides* following an Enrichment Technique **Susan M. Freund, John A. Koburger and Cheng-I Wei*** 110
- Effects of Electrical Stimulation and Kidney-Pelvic Fat Removal Before Chilling on Microbial Quality of Beef Tenderloins **E. Connie Grimes, William R. Jones*, Dale L. Huffman and Dennis N. Marple** 113
- Effects of Dietary *Trans* Fatty Acids on Mutagenesis of Known Carcinogens **Marianne Schaub and Nancy R. Green*** 117
- Saprophytic and pathogenic Bacteria Levels in Turkish Soudjouks Manufactured in Erzurum, Turkey **H. Y. Gokalp, H. Yetim, M. Kaya and H. W Ockerman*** 121
- Ineffectiveness of Three Added Mold Species to Enhance the Rapid Aging of Beef **A. W. Kotula*, S. G. Campano and D. M. Kinsman** 126
- Selective Enterotoxin Production by a *Staphylococcus aureus* Strain Implicated in a Foodborne Outbreak **Raymond G. Bryant*, Josephine Jarvis and Gerry Gulbert** 130
- Thermal Destruction of *Escherichia coli* and *Klebsiella pneumoniae* in Human Milk **Jeffrey N. Morgan, F. Janelin, Ronald R. Eitenmiller*, Harold M. Barnhart and Romeo T. Toledo** 132
- Analysis of Sulfites in Shrimp Using Rapid Distillation Followed by Recox Titration **Marion V. Simpson, W. Steven Otwell, Maurice R. Marshall* and John A. Cornell** 137
- Effects of Potassium Sorbate and Natamycin on Growth and Penicillic Acid Production by *Aspergillus ochraceus* **Hassan Gourama and Lloyd B. Bullerman*** 139

General Interest Papers

- *Campylobacter* Species: Considerations For Controlling A Foodborne Pathogen **Don A. Franco** 145
- Revision of Section 2.4M in Standard Methods for the Examination of Dairy Products, 15th Edition **R. T. Marshall, R. A. Case, R. E. Ginn, J. W. Messer, J. T. Peeler, G. H. Richardson and H. M. Wehr** 154

Vol. 51 March, 1988 No. 3

Research Papers

- Survival of *Listeria monocytogenes* in Simulated Milk Cooling Systems **R. Petran and E. A. Zottola*** 172
- Nature and Number of Ground-Beef Microorganisms Capable of Growth at 25°C but Not at 32°C **E. G. Steinbruegge and R. Burt Maxcy*** 176
- Comparative Study on Injury and Recovery of *Staphylococcus aureus* using Microwaves and Conventional Heating **H. Khalil and R. Villota*** 181
- Recovery of *Clostridium perfringens* from Food Samples Using an Oxygen-Reducing Membrane Fraction **C. B. Hoskins and P. M. Davidson*** 187
- Production of Enterotoxin by *Vibrio Vulnificus* Isolates **Gerard N. Stelma, Jr.*, Procter L. Spaulding, Antolin L. Reyes and Clifford H. Johnson** 192
- Microbiological Changes in Smoked and Charred Baltic Herrings during Storage **Hannu J. Korkeala* and Pekka K. Pakkala** 197
- Production of Sensitive Monoclonal Antibodies to Aflatoxin B_1 and Aflatoxin M_1 and Their Application of ELISA of Naturally Contaminated Foods **D. E. Dixon-Holland, J. J. Pesta*, B. A. Bidigare, W. L. Casale, R. L. Warner, B. P. Ram and L. P. Hart** 201
- Mercury Content in Different Species of Mushrooms Grown in Spain **G. Zurera-Cosano*, F. Rincon-Leon, R. Moreno-Rojas, J. Salmeron-Egea and R. Pozo-Lora** 205
- Microbiological Conditions and Keeping Quality of Veal Tongues as Affected by Lactic Acid Decontamination and Vacuum Packaging **Ingrid J. R. Visser, Peter A. Koolmees and Peter G. H. Bijker*** 208
- Significance of Samples Taken for Bacterial Counts from Reduced Areas of Bovine Carcasses **Jorge Lasta* and Reinaldo Fonrouge** 214

General Interest papers

- Microbial Purification of Shellfish: A Review of Depuration and Relaying **Gary P. Richards** 218

Vol. 51 April, 1988 No. 4

Research Papers

- Retail Case-Life and Microbial Quality of Pre-Marinated, Vacuum Packaged Beef and Chicken Fajitas **D. K. Jones, J. W. Savell, G. R. Acuff* and C. Vanderzant** 260
- Role of Hydrogen Peroxide in the Prevention of Growth and Aflatoxin Production by *Aspergillus parasiticus* **Fathy E. El-Gazzar and Elmer H. Marth*** 263
- Preliminary Studies of Microfiltration for Food Processing Water Reuse **Marcus R. Hart*, Charles C. Huxsoll, Lee-Shin Tsai and Keng C. Ng** 269
- Growth of *Listeria monocytogenes* at 10°C in Milk Preincubated with Selected Pseudomonads **Douglas L. Marshall and Ronald H. Schmidt*** 277
- Gas-Liquid Chromatographic Determination of Propionic Acid Production Differentiates between the Food-Poisoning Strains and Toxigenic-Type Strains of *Clostridium perfringens* **Fusao Kondo* and Shelji Nagasue** 283
- Hazelnuts as Possible Substrate for Aflatoxin Production **V. Sanchis*, M. L. Quilez, R. Viladrich, I. Viñas and R. Canela** 289
- Hazard Analyses of Foods Prepared by Inhabitants Along the Peruvian Amazon River **Silvia Michanie, Frank L. Bryan*, Nelly Mendoza Fernández, Magda Moscoso Vizcarra, Dora Taboada P., Obdulia Navarro S., Aurora Bravo Alonso and Lita Santillan M.** 293
- Influence of Spoilage Flora and Temperature on Growth of *Staphylococcus aureus* in Turkey Meat **Xieonoia Yang, R. G. Board* and G. C. Mead** 303
- Heat Stability of the Bile Salt-Stimulated Lipase in Human Milk Fortified with Sodium Taurocholate **H. L. Pan, C. W. Dill*, E. S. Alford, S. L. Dill, C. A. Bailey, R. L. Richter and C. Garza** 310
- Hazard Analyses of Foods Prepared by Migrants Living in a New Settlement at the Outskirts of Lima, Peru **Frank L. Bryan, Silvia Michanie*, Nelly Mendoza Fernandez, Magda Moscoso Vizcarra, Dora Taboada P., Obfulia Navaroo S., Aurora Bravo Alonso and Elena Guerra Requejo** 314
- Occurrence of *Bacillus cereus* in Meat Products, Raw Meat and Meat Product Additives **Hirota Konuma, Kunihiro Sinagawa*, Masakazu Tokumaru, Youichi Onoue, Sumio Konno, Norio Fujino, Tamotsu Shigehisa, Hiroshi Kurata, Yoshihiro Kuwabara and Carlos A. M. Lopes** 324

General Interest Papers

- Incidence of Foodborne Diseases in the Netherlands: Annual Summary 1982 and an Overview from 1979 to 1982 **H. J. Beckers** 327

Vol. 51 May, 1988 No. 5

Research Papers

- Effect of Carbon Dioxide and Oxygen Enriched Atmospheres on the Shelf-Life of Refrigerated Pork Packed in Plastic Bags **Miguel A. Asensio, Juan A. Ordoñez* and Bernabe Sanz** 356
- Effect of Temperature, Water Activity and Other Toxigenic Mold Species on Growth of *Aspergilus flavus* and Aflatoxin Production on Corn, Pinto beans and Soybeans **Mary W. Trucksess*, Leonard Stoloff and Philip B. Mislivec** 361
- Assessment of the Cleanability of Air-Actuated Butterfly Valves **J. L. Karpinsky and R. L. Bradley Jr*** 364
- Inspection Systems and Mechanical Removal Systems for Bone and Cartilage Particles in Ground Beef Patties **B. W. Berry* and E. C. Green** 369
- Critical Control Points of Street-Vended Foods in the Dominican Republic **Frank L. Bryan, Silvia C. Michanie*, Persia Alvarez and Aurelio Paniagua** 373
- Incidence of Fecal-Coliforms and Serovars of Enteropathogenic *Escherichia Coli* in Naturally Contaminated Cheese **F. M Abbar** 384
- Properties of Labneh-Like Product Manufactured Using Enterococcus Starter Cultures as Novel Dairy Fermentation Bacteria **Y. A. El-Samragy*, E. O. Fayed, A. A. Aly and A. E. A. Hagrass** 386
- Improved Selected Procedure for Detection of Salmonellae from Poultry and Sausage Products **J. S. Bailey*, J. Y. Chiu, N. A. Cox and R. W. Johnston** 391
- Microbiological Quality of Fresh and Frozen Breakfast-Type Sausages Sold in Canada **J. M. Farber*, S. A. Malcolm, K. F. Weiss and M. A. Johnston** 397
- Evaluation of the ß-Blucuronidase Substrate 5-Bromo-4Chloro-3-Indolyl-ß-D-Glucuronide (X-GLUC) in a 24-Hour Direct Plating Method for *Escherichia coli* **Elon W. Frampton*, Lawrence Restaino and Nancy Blaszko** 402
- Comparison of Sampling Methods and Implications for Bacterial Decontamination of Poultry Carcasses by Rinsing **H. S. Lillard** 405
- Recovery of *Salmonella* from Fluid Milk **Clyde R. Wilson, Wallace H. Andrews*, Paul L. Poelma and Verneal R. Bruce** 409
- Hazard Analyses of Food Prepared by Inhabitants Near Lake Titicaca in the Peruvian Sierra **Frank L. Bryan*, Silvia Michanie, Magda Moscoso Vizcarra, Obdulia Navarro S., Dora Taboada, Nelly Mendoza Fernández, Elena Guerra Requejo and Bianca Perez Muñoz** 412

General Interest Papers

- Proposed Theoretical Water Activity Values at Various Temperatures for Selected Solutions to be Used as Reference Sources in the Range of Microbial Growth **Silvia L. Resnik* and Jorge Chirife** 419

Vol. 51 June, 1988 No. 6

Research Papers

- Effect of Ascorbic and Isoascorbic acids on Survival of *Campylobacter jejuni* in Poultry Meat **B. J. Juven*, J. Kanner, H. Weissiowicz and S. Harel** 436
- Horizontal Spread of Human and Poultry-Derived Strains of *Campylobacter jejuni* among Broiler Chicks Held in Incubators and Shipping Boxes **A. Gavin Clark* and Donna H. Bueschkens** 438
- Occurrence of Fecal Coliforms and Enteropathogenic *Escherichia coli* (EEC) in Egyptian Soft Cheese **Ahmed A-H. Ahmed*, S. H. Ahmed and Moustafa K. Moustafa** 442
- Scanning Electron Microscopic Examination of *Yersinia enterocolitica* Attached to Stainless Steel at Selected Temperatures and pH values' **Paula J. Herald and Edmund A. Zottola*** 445
- Effect of Other Toxigenic Mold Species on Aflatoxin Production by *Aspergillus flavus* in Sterile Broth Shake Culture **Philip B. Mislivec*, Mary W. Trucksess and Leonard Stoloff** 449
- Mycotoxin Formation by *Aspergillus flavus* and *Fusarium graminearum* in Irradiated Maize Grains in the Presence of other Fungi **Raul Cuero, John E. Smith* and John Lacey** 452
- Toxicity and Sorbate Sensitivity of Molds Isolated from Surplus Commodity Cheeses **Wei-Yun J. Tsai, Michael B. Liewen and Lloyd B. Bullerman*** 457
- Production and Characterization of Antibody Against PR Toxin **Ru-Dong Wei and Fun S. Chu*** 463
- Bacteriological Profiles of Human Milk from Individual Donors and Pooled Samples from a Commercial Milk Bank **F. Jane Lin, Harold M. Barnhart, J. Stan Bailey, Nelson A. Cox, and Ronald R. Eitenmiller*** 467
- Microbial Decontamination and Weight of Carcass Beef as Affected by Automated Washing Pressure and Length of Time of Spray' **J. D. Crouse*, M. E. Anderson and H. D. Naumann** 471
- Effects of Organic Acids on Thermal Inactivation of *Bacillus stearothermophilus* and *Bacillus coagulans* Spores in Frankfurter Emulsion Slurry **Donald J. Lynch and Norman N. Potter*** 475
- Acid Production and Proteolytic Activity of Lactobacillus Strains Isolated from Dry Sausages **Graciela M. Vignolo, Alda Pesce deRuiz Holgado and Guillermo Oliver*** 481
- Comparison of Acridine Orange Staining Using Fluorescence Microscopy with Traditional Methods for Microbiological Examination of Selected Dry Food Products **David Oppong and Birdell H. Snudden*** 485
- Mechanism of Acid Tolerance by a Yeast Isolated from Spoiled Ketchup **Kent M. Sorrells and Barbara Leonard** 489

General Interest Papers

- Inactivation of Antibiotics by Heating in foods and other Substrates - A Review **W. A. Moats** 491
- Risks Associated with Vehicles of Foodborne Pathogens and Toxins **Frank L. Bryan** 498

Vol. 51 July, 1988 No. 7

Research Papers

- Inactivation of *Listeria Monocytogenes* by Chlorine **Souzan E. El-Kest and Elmer H. Marth*** 520
- Sodium Benzoate Inhibits Growth of or Inactivates *Listeria monocytogenes* **Moustafa A. El-Shenawy and Elmer H. Marth*** 525
- Microbiological and Sensory Quality Changes in Unwrapped and Wrapped Sliced Watermelon **S. D. Abbey, E. K. Heaton, D. A. Golden and L. R. Beuchat*** 531
- Enterotoxin Production by Staphylococcal Isolates from Nigerian Fermented Milk Products **V. J. Umoh*, A. A. Adesiyun and N. E. Gomwalk** 534
- Detection of *Salmonella* with the BioEnzabead™ Enzyme Immunoassay Technique **J.-Y. D'Aoust* and A. M. Sewell** 538
- Color Changing Indicator to Monitor the Time-Temperature History during Cooking of Meats **Guillermo J. Favetto, Jorge Chirife, Osvaldo C. Scorza and Carlos Hermida*** 542
- Evaluation of Four Analytical Methods to Detect Weevils in Wheat: Granary Weevil, *Sitophilus granarius* (L.), in Soft White Wheat **Gerald E. Russell** 547
- Growth of Rats Fed Ground Beef Treated with Aqueous Chlorine **A. W. Kotula and B. S. Emswiler-Rose** 554
- Reactivation of the Lactoperoxidase System during Raw Milk Storage and its Effect on the Characteristics of Pasteurized Milk **Cecilia E. Martinez, Patricia G. Mendoza, Francisco J. Alarcon and Hugo S. Garcia*** 558
- Chicken-to-Human Infection with *Campylobacter jejuni* and *Campylobacter coli*: Biotype and Serotype Correlation **A. Annah-Prah and M. Janc*** 562
- Changes in Bacterial Cell and Spore Counts of Reduced-Fat Egg Products As Influenced by Pasteurization and Spray Drying **Kerry J. Moore*, Molly W. Warren, D. Robert Davis and Michael G. Johnson** 565
- Microanalytical Quality of Imported Green Coffee Beans **John S. Gecan*, Ruth Bandler and John C. Atkinson** 569
- Examination of Enterotoxin Production at Low Temperature by *Yersinia* spp. in Culture Media and Foods **Donald A. Schiemann** 571
- Essential Elements in Dry and Canned Chick Peas (*Cicer arietinum L.*) **Anthony Lopez* and Harriet L. Williams** 574
- Performance of Some Heat-Sensitive Differential Agars Prepared and Melted by Microwave Energy† **C. Liang and D. Y. C. Fung*** 577
- Performance of a DNA Probe-Based *Salmonella* Test in the AACC Check Sample Program **Barry S. Sall, Massimo Lombardo, Brendan Sheridan and George H. Parsons*** 579

General Interest Papers

- Botulism in Native Peoples - An Economic Study **Ewen C. D. Todd** 581

Vol. 51 August, 1988 No. 8

Research Papers

- Fate of *Listeria monocytogenes* on Ready to Serve Lettuce **E. G. Steinbruegge, R. Burt Maxcy* and Michael B. Liewen** 596
- Behavior of *Listeria monocytogenes* in Skim Milk during Fermentation with Mesophilic Lactic Starter Cultures **Michelle M. Schaack and Elmer H. Marth*** 600
- Behavior of *Listeria monocytogenes* in Skim Milk and in Yogurt Mix during Fermentation by Thermophilic Lactic Acid Bacteria **Michelle M. Schaack and Elmer H. Marth*** 607
- Survival of *Listeria monocytogenss* in Cold-Pack Cheese Food During Refrigerated Storage **E. T. Ryser and E. H. Marth*** 615
- Temperature, pH, and Strain of Pathogen as Factors Affecting Inactivation of *Listeria monocytogenes* by Chlorine **Souzan E. El-Kest and Elmer H. Marth*** 622
- Comparison of Media and Procedures for the Isolation of *Listeria monocytogenes* from Ground Beef **R. B. Truscott* and W. B. McNab** 626
- The Effect of Liquid Smoke on *Listeria monocytogenes* **Maria C. Messina, Hamdi A. Ahmad, John A. Marchello*, Charles P. Gerba and Michael W. Paquette** 629
- Detection of Antibiotic Residues in Consumer Milk Supplies in North America using the Charm Test II Procedure **D. L. Collins-Thompson*, D. S. Wood and I. Q. Thomson** 632
- Survival and Growth of *Aeromonas hydrophila, Vibrio parahaemolyticus,* and *Staphylococcus aureus* on Cooked Mince and Surimis made from Atlantic Pollock **Steven C. Ingham and Norman N. Potter*** 634
- Substrates Used by *Brochothrix thermosphacta* When Growing on Meat **Frederick H. Grau** 639
- Growth of Psychrotrophic Bacteria in Solids Fortified Skim Milk **Dong K. Jeong and Joseph F. Frank*** 643
- Enumeration of Aerobic Spore-Formers and *Bacillus cereus* in Meat Product Additives **Kunihiro Shinagawa*, Hirotaka Konuma, Masakazu Tokumaru, Niro Takemasa, Masayuki Hashigiwa, Tamotsu Shigehisa and Carlos A. M. Lopes** 648
- Growth Response of Putrefactive Anaerobe 3679 to Combinations of Potassium Sorbate and Some Common Curing Ingredients (Sucrose, Salt and Nitrite), and to Noninhibitory Levels of Sorbic Acid **Irene E. Ronning and Hilmer A. Frank*** 651
- The Incidence of *Listeria* Species in Frozen Seafood Products **Stephen D. Wegant*, Patricia N. Sado, Karen G. Colburn, James D. Trokelson, Fred A. Stanley, Mary H. Krane, Sue C. Shields and Charles F. Thayer** 655
- Evaluation of the 3M Petrifilm™ Culture Plate Method for Enumerating Aerobic Flora and Coliforms in Poultry Processing Facilities **J. S. McAllister*, M. P. Stadtherr, T. L. Fox** 658
- Survey of the Microbial Quality of Dry Fish, Cassava and Okra in Ghana **John Y. Lu*, Ralphenia D. Pace and Wisdom D. Plahar** 650

General Interest Papers

- Risks of Practices, Procedures and Processes that Lead to Outbreaks of Foodborne Diseases **Frank L. Bryan** 663

Vol. 51 September, 1988 No. 9

Research Papers

- A Collaborative Study Comparing Three ELISA Systems for Detecting *Staphylococcus aureus* Enterotoxin A in Sausage Extracts **H. Schönwälder*, J. J. Haaijman, R. Holbrook, J. Huis in't, Veld, S. Notermans, I. M. Schäffers and R. Zechaler** 680
- A Comparison of Six Selective Media for the Enumeration and Isolation of Staphylococci **D. G. White, J. S. Matos, R. J. Harmon and B. E. Langlois*** 685
- Distribution of *Trichinella spiralis* in the Diaphragm of Experimentally Infected Swine **A. W. Kotula*, P. J. Rothenberg, J. R. Burge and M. B. Solomon** 691
- Composition of Grade A and Manufacturing Grade Herd Milks in South Dakota **Robert J. Baer*, Joel L. Sommerfeldt and Karen M. Tieszen** 696
- Increased Sporulation of *Clostridium perfringens* in a Medium Prepared with the Prereduced Anaerobically Sterilized Technique or with Carbon Dioxide or Carbonate **S. E. Craven** 700
- Growth, Germination and Toxigenic Activity of *Bacillus cereus* in Milk Products **H. C. Wong*, Y. L. Chen and C. L. F. Chen** 707
- Chemical Forms of Iron, Calcium, Magnesium, Zinc, and Copper from Rats Diets Containing Tea **Lauren S. Jackson and Ken Lee** 711
- Use of Microwave Ovens to Pasteurize Milk **Kathleen M. Knutson, Elmer H. Marth* and Mary K. Wagner** 715
- Feasibility of a Heat-Pasteurization Process for the Inactivation of Nonproteolytic *Clostridium botulinum* types B and E in Vacuum-Packaged, Hot-Process (Smoked) Fish **M. W. Eklund*, M. E. Peterson, R. Paranjpye and G. A. Pelroy** 720
- Determination of Ethylene Dibromide in Tropical Fresh Fruits Using Dean-Stark Apparatus and ECD-Gas Chromatography **Yumiko Nakamura*, Yukari Hasegawa, Yasuhide Tonogai, Minoru Hanafusa, Hideaki Hirose, Yoichi Taharasako and Yoshio Ito** 727
- Effect of Magnesium and Iron on the Growth of and Production of Extracellular Proteins by *Staphylococcus aureus* Strain S-6 **Elisa Yoko Hirooka, Sonia Presa C. de Salzberg and Marlin S. Bergdoll*** 731
- Cultivation as an Estimate for Infectivity of Larval *Anisakis simplex* from Processed Herring **Jadigwa Grabda and Jeffrey W. Bier*** 734
- Asbestos Fibers in Sake **Shuzo Ogino, Nobutaka Fukumori, Tetsuko Yasuno, Masamichi Koseki and Masayoshi Kazama** 737
- The Calcium Content of Cottage Cheese Made by Culture and Direct Acidification **B. J. Demott** 740

General Interest Papers

- A Novel Processing Approach for Rapeseed and Mustard Seed-Removal of Undesirable Constituents by Methanol-Ammonia **Fereidoon Shahidi*, Marian Naczk, Leon J. Rubin and Lavente L. Diosady** 743

Vol. 51 October, 1988 No. 10

Research Papers

- Rapid Detection of *Listeria* spp. in Food and Environmental Samples by Esculin Hydrolysis **Judy A. Fraser* and William H. Sperber** 762
- Evaluation of 24-Hour Flourogenic Assay for the Enumeration of *Escherichia coli* From Foods **Loralyn H. Weiss* and John Humber** 766
- The Use of Sodium Chloride for Determining Viable Mold Counts and Mold Flora in Foods **Philip B. Mislivec* and Verneal R. Bruce** 770
- Pyruvate Kinase Activity as an Indicator of Temperature Attained During Cooking of Cured Pork **C. E. Davis, G. K. Searcy, L. C. Blankenship and W. E. Townsend** 773
- A Reflectance Colorimeter Instrument for Measurement of Microbial and Enzymatic Activities in Milk and Dairy Products **G. H. Richardson*, R. Grappin and T. C. Yuan** 778
- A Simple Method for the Characteristic Differentiation of Antibiotics by TLC-Bioauthography in Graded Concentration of Ammonium Chloride **Fusao Kondo** 786
- Sandwich ELISA for Detection of Pig Meat in Raw Meat Using Antisera to Muscle Proteins **Rosario Martin, Juan I. Azcona, Carmen Casas, Pablo E. Hernández* and Bernabé Sanz** 790
- Efficacy of a Fatty Acid-Lactic Acid Postmilking Teat Germicide in Reducing Incidence of Bovine Mastitis **Richard L. Boddie* and Stephen C. Nickerson** 799
- A Research Note: Determination of Calcium in Cottage Cheese by Titration **B. J. Demott** 802
- A Research Note: Fermentation Products form Carbohydrate Metabolism in *Pediococcus pentosaceus* PC39 **Amy L. Tetlow and Dallas G. Hoover*** 804
- A Research Note: Mycological Survey of Chicken Feed and Some Feed Ingredients in Turkey **Dilek Heperkan* and İhsan Alperden** 807

General Interest Papers

- Biosensors in the Food Industry: Present and Future **B. J. Schaertel and Ruth Firstenberg-Eden*** 811

Vol. 51 November, 1988 No. 11

Research Papers

- Occurence of *Listeria monocytogenes* in Raw Milk in Nebraska **Michael B. Liewen* and Mark W. Plautz** 840
- Inhibition and Inactivation of *Listeria monocytogenes* by Sorbic Acid **Moustafa A. El-Shenawy and Elmer H. Marth*** 842
- Survival of *Listeria monocytogenes* in Refrigerated Cultured Milks and Yogurt **Michelle M. Schaack and Elmer H. Marth*** 848
- Reliability of the Immunodiffusion 1-2 Test™ System for Detection of *Salmonella* in Foods **J.-Y. D'Aoust* and A. M. Sewell** 853
- *Campylobacter Jejuni* and *Campylobacter Hyointestinalis* in the Intestinal Tract and on the Carcasses of Calves and Cattle **Frederick H. Grau** 857
- Outgrowth and Toxin Production by *Clostridium botulinum* in Bottled, Chopped Garlic **Haim M. Solomon* and Donald A. Kautter** 862
- Mixed Culture Fermentations To Improve Nutritional Value of Corn Meal **M. L. Fields*, A. Al-Shoshan and Y. Poosiri** 866
- Reduction of Bacteria Attached to Meat Surfaces by Washing with Selected Compounds **James S. Dickson** 869
- Counts of Six Types of Bacteria on Lamb Carcasses Dipped or Sprayed with Acetic Acid at 25°C or 55°C and Stored Vacuum Packaged at 0°C **M. E. Anderson*, H. E. Huff, H. D. Haumann and R. T. Marshall** 874
- Effects of Freezing Method and Antioxidants on Lipid Oxidation in Turkey Sausage **S. Berbut*, H. H. Draper and M. Hadley** 878
- Chemical Forms of Iron, Calcium, Magnesium and Zinc in Coffee and Rat Diets Containing Coffee **Lauren S. Jackson and Ken Lee*** 883
- Destruction of Aflatoxin During the Production of Hydrolysed Vegetable Protein **Keith R. Williams and Michael F. Dutton*** 887
- A Research Note: *Clostridium Botulinum* in Honey, Syrups and Dry Infant Cereals **A. H. W. Hauschild*, R. Hilsheimer, K. F. Weiss and R. B. Burke** 892
- A Research Note: Evaluation of Four Media for Recovery of Heat-Stressed Streptococci **C. A. Magnus, A. R. McCurdy and W. M. Ingledew*** 895
- A Research Note: The Economic Impact of a Foodborne Disease Outbreak Due to *Staphylococcus aureus* **P. Sudhakar, R. Nageswara Rao, Ramesh V. Bhat and C. P. Gupta** 898
- A Research Note: Detectability of Erythromycin in Eight Milk Products Using the AOAC *Bacillus stearothermophilus* Disc Assay **Kathleen T. Rajkowski, James T. Peeler and James W. Messer*** 901
- A Research Note: Total Sulfur Dioxide Residuals in Fresh Mushrooms Washed in Sulfite Solutions **R. B. Beelman*, C. L. Barden and C. G. Edwards** 903
- A Research Note: Production of Pantothenic Acid by Microorganisms Isolated from Fermented Corn Meal **Ching-Yee Liu and M. L. Fields*** 906

Vol. 51 December, 1988 No. 12

Research Papers

- Migration of the Plasticizer Acetyltributyl Citrate from Plastic Film into Foods during Microwave Cooking and Other Domestic Use **L. Castle, S. M. Jickells, M. Sharman, J. W. Gramshaw and J. Gilbert*** 916
- Confirmation of Widespread Sulfonamide Contamination in Northeast U.S. Market Milk **Stanley E. Charm*, Eliezer Zomer and Robert Salter** 920
- Isolation of *Plesiomonas shigelloides* from Oysters Using Tetrathionate Broth Enrichment **Susan M. Freund, John A. Koburger and Cheng-I Wei*** 925
- Bacterial and Somatic Cell Counts in Bulk Tank Milk from Nine Well Managed Herds **J. S. Hogan*, K. H. Hoblet, K. L. Smith, D. A. Todhunter, P. S. Schoenberger, W. O. Hueston, D. E. Pritchard, G. L. Bowman, L. E. Heider and H. R. Conrad** 930
- Airborne Microorganisms in a Pork Processing Establishment **A. W. Kotula* and B. S. Emswiler-Rose** 935
- Aflatoxin Production by *Aspergillus parasiticus* and Its Stability During the Manufacture of Korean Soy Paste (Doenjang) and Soy Sauce (Kanjang) by Traditional Method **Kun-Young Park*, Kyu-Bok Lee and Lloyd B. Bullerman** 938
- Microbiological Characteristics and Shelf Life of Corn Tortillas with and without Antimicrobial Agents **A. Tellez-Giron, G. R. Acuff*, C. Vanderzant, L. W. Rooney and R. D. Waniska** 945
- Improved Sensitivity of the Bioluminescent Determination of Numbers of Bacteria in Milk Samples **Jo Ann J. Webster, Marliese S. Hall, C. Nelson Rich, Stanley E. Gilliland, Sharon R. Ford and Franklin R. Leach*** 949
- Improved Methods for Quality Assessment of Raw Milk **J. Russell Bishop* and Jia-Ying Juan** 955
- Farm Inspection Scores and Milk Quality Criteria as Indices of *Salmonella* in Bulk Milk **Scott A. McEwen*, Lawrence H. McClure and S. Wayne Martin** 958
- A Prevalence Survey of *Salmonella* in Raw Milk in Ontario, 1986-87 **Scott A. McEwen*, S. Wayne Martin, Robert C. Clarke and Susan E. Tamblyn** 963
- Growth of *Aeromonas hydrophila* and *Pseudomonas fragi* on Mince and Surimis Made from Atlantic Pollock and Stored Under Air or Modified Atmosphere **Steven C. Ingham and Norman N. Potter*** 966
- Time Courses for Viable Counts, pH and Total Volatile Basic Nitrogen in Squid Homogenates (*Ommastraphes bartrami*) Inoculated with Spoilage Yeast or Bacteria **Michiko Kobatake*, Yasuhide Tonogai and Yoshio Ito** 971
- A Research Note: The Shelf Life of Pasteruzied Fresh Milk Manufactured in Saudi Arabia **Joseph S. Saiji*, Suhayl R. Saadi and Ahmed Mashhadi** 976
- A Research Note: Microanalytical Quality of Canned Crabmeat, Sardines, and Tuna **John S. Gecan*, Ruth Bandler and John C. Atkinson** 979

SUBJECT INDEX

Aeromonas hydrophila
- growth in mince and surimi, 966
- survival and growth, cooked mince, surimis, 634

Aflatoxins (see mycotoxins)

Anisakis simplex, processed herring, estimate of infectivity, 734

Antibiotics
- antimicrobial residues in milk, 8
- differentiation by TLC-bioautography, 786
- erythromycin, detectability in milk, 901
- inactivation by heating, 491
- sulfonamide contamination of market milk, 920

Antimicrobial, residues in milk, 8

Antioxidants, effects on frozen bacon, appearance, display life, 105

Aspergillus flavus
- aflatoxin production, effect of other molds, 449, 452
- growth, aflatoxin production corn, pinto beans, soybeans, 361
- temperature, A_w, other molds, effect of growth, aflatoxin, 361

Aspergillus ochraceus inhibition, sorbate, natamycin, 139

Aspergillus parasiticus inhibition, hydrogen peroxide, 263

Bacillus cereus
- enumeration in meat product additives, 648
- growth and toxicity in milk products, 707
- occurrence, meat products, raw meat, meat additives, 324

Bacillus coagulans spores, inactiviation, frankfurter emulsion, 475

Bacillus stearothermophilus spores, inactivation, frankfurter emulsion, 475

Bacteria
- cell and spore counts of reduced-fat egg products, 565
- decontamination of beef carcasses, 471
- decontamination of poultry carcasses, 405
- effect on growth of *S. aureus* in turkey meat, 303
- growth in squid homogenates, 971
- microflora of unwrapped, wrapped sliced watermelon, 531
- profiles in human milk, 467
- psychrotrophic growth, fortified skim milk, 643
- quality of fresh and frozen breakfast sausage, 397
- saprophytic, pathogenic, in Turkish Soudjouks, 121

Bacteriological methods
- acridine orange stain for direct microscopic counts, 485
- antibiotic residues, milk, 8
- bioluminescent determination, bacteria in milk, 949
- calf antibiotic and sulfa test (CAST), 43
- detection, *Salmonella*, immunodiffusion, 853
- DNA probe-based *Salmonella* test, 579
- *E. coli*, 24-hour direct plating method, 402
- enrichment, *Plesiomonas shigelloides*, 110
- enumeration, aerobic spore-formers in meat additives, 648
- flourescence microscopy, direct microscopic counts, 485
- flourogenic assay, *E. coli*, 766
- identification, staphylococci, bovine origin, 24
- impedance
  - coliforms, cheese 53
  - *Staphylococcus aureus*, cheese, 53
  - isolation, *Listeria monocytogenes*, ground beef, 626
  - media for heat-stressed streptococci, 895
  - microbial inhibitor test (MIT), 43
  - microwave melting, heat-sensitive differential agars, 577
  - *Plesiomonas, shigelloides* isolation, 925
  - rapid detection, Listeria, 762
  - recovery, *C. perfringens*, oxygen-reducing membrane fraction, 187
  - reflectance colorimeter measurement, micorbial activity, 779
  - *Salmonella*, enzyme imminoassay technique, 538
  - *Salmonella* recovery from milk, 409
  - selective media, staphlyococci, 685
  - selective media, *staphlyococcus aureus*, 87
  - selective procedure, Salmonellae, 391
  - swab test on premises (STOP), 43
  - 3M Petrifilm culture plate, aerobic flora, coliforms, poultry, 658
  - 3M Petrifilm, psychrotrophic bacteria, raw milk, 955